

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:)	
)	Confirmation No: 1244
Jeff M. Anderson, <i>et al.</i>)	
)	Group Art Unit: 2618
Serial No.: 10/688,652)	
)	Examiner: Huang, Wen Wu
Filed: October 17, 2003)	
)	
For: Computing Device and Methods for)	Docket No.: 100202797-1
Mobile-Printing)	

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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P.O. Box 1450
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Sir:

This Appeal Brief under 37 C.F.R. § 41.37 is submitted in support of the Notice of Appeal filed May 13, 2009, responding to the Final Office Action mailed April 29, 2009.

It is not believed that extensions of time or fees are required to consider this Appeal Brief. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. §1.136(a), and any fees required therefor are hereby authorized to be charged to Deposit Account No. 08-2025.

I. Real Party in Interest

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

II. Related Appeals and Interferences

There are no known related appeals or interferences that will affect or be affected by a decision in this Appeal.

III. Status of Claims

Claims 1-2, 4-7, 9-17, and 19-24 stand finally rejected. Claims 3, 8, and 18 have been canceled. The final rejections of claims 1-2, 4-7, 9-17, and 19-24 are appealed.

IV. Status of Amendments

No claim amendments have been made subsequent to the Final Office Action mailed April 29, 2009. The claims in the attached Claims Appendix reflect the present state of Applicants' claims.

V. Summary of Claimed Subject Matter

The claimed inventions are summarized below with reference numerals and references to the written description (“specification”) and drawings. The subject matter described in the following appears in the original disclosure at least where indicated, and may further appear in other places within the original disclosure.

Embodiments according to independent claim 1 describe a method for printing information at a remote location. Such a method comprises establishing a network connection at a remote location, Applicants’ specification, page 24, lines 12-14, and receiving a list of printing devices communicatively coupled to a print service (FIG. 3, 700) available to a mobile-computing device (FIG. 1, 10). Applicants’ specification, page 24, lines 16-18. The method further comprises accepting and installing at the mobile-computing device (FIG. 1, 10) a latest version of a common print driver (FIG. 3, 764) from the print service (FIG. 3, 700), Applicants’ specification, page 24, lines 21-26; requesting a print device context responsive to a printer selected from the list of printing devices, Applicants’ specification, page 27, lines 6-13 and page 28, lines 5-6; and using an application (FIG. 2, 410) resident on the mobile-computing device (FIG. 1, 10) to render information to the print device context, wherein the application (FIG. 2, 410) generates a plurality of device commands responsive to the information to be printed. Applicants’ specification, page 28, lines 8-10. The method also comprises forwarding the device commands to the print service (FIG. 3, 700), wherein the print service (FIG. 3, 700) renders the device commands against the printer (FIG. 1, 116), Applicants’ specification, page 28, lines 14-16; and upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of

printing devices that are available to be selected. Applicants' specification, page 7, lines 8-12 and page 22, lines 1-4.

Embodiments according to independent claim 6 describe a computer-readable storage medium having stored thereon an executable instruction set, where the instruction set, when executed by a processor (FIG. 2, 210), directs the processor (FIG. 2, 210) to perform a method comprising sensing by the processor (FIG. 2, 210) a change of connection status between a mobile-computing device (FIG. 1, 10) and a wireless access device coupled to a local area network. Applicants' specification, page 16, lines 9-14 and page 17, lines 22-26. Such a method further comprises establishing by the processor (FIG. 2, 210) a communication session with a print service (FIG. 3, 700) accessible via the local area network when the change of connection status indicates that the mobile-computing device (FIG. 1, 10) has established a communication session with the wireless access device, wherein during the communication session the mobile-computing device (FIG. 1, 10) uses a printer driver (FIG. 3, 764) configured to generate a generic device context responsive to a designated printer coupled to the print service (FIG. 3, 700). Applicants' specification, page 24, lines 12-14; page 27, lines 6-13; and page 28, lines 5-6. The method further comprises using the printer driver (FIG. 3, 700) to intercept graphics device commands generated by an application (FIG. 2, 410) operative on the mobile-computing device (FIG. 1, 10), Applicants' specification, page 27, lines 19-21; forwarding the graphics device commands by the processor (FIG. 2, 210) to the print service (FIG. 3, 700), wherein the print service (FIG. 3, 700) renders the graphics device commands against the designated printer, wherein during the communication session, the mobile-

computing device (FIG. 1, 10) receives a common driver (FIG. 3, 764) from the print service (FIG. 3, 700), Applicants' specification, page 24, lines 21-26 and page 27, lines 20-24; and upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that is available to be selected. Applicants' specification, page 7, lines 8-12 and page 22, lines 1-4.

Embodiments according to independent claim 15 describe a mobile-computing device comprising means for responding (e.g., FIG. 2, 210; FIG. 4, 410) to a change of connection status between a mobile-computing device and a wireless access device communicatively coupled to a print service (FIG. 3, 700). Applicants' specification, page 6, lines 4-11. The mobile-computing device further comprises means for establishing (e.g., FIG. 2, 210; FIG. 4, 410; FIG. 11, 1102) a communication session with the print service (FIG. 3, 700) when the change of connection status indicates that the mobile-computing device has established a connection with the wireless access device, wherein during the communication session the mobile-computing device uses a printer driver (FIG. 3, 764) configured to generate a generic device context responsive to a printer coupled to the print service (FIG. 3, 700) and wherein the means for establishing a communication session further comprises means for receiving a common driver; Applicants' specification, page 24, lines 12-14; page 27, lines 6-13; and page 28, lines 5-6. The mobile-computing device also comprises means for intercepting graphics device commands (e.g., FIG. 2, 210; FIG. 4, 410; FIG. 12, 1212) generated by an application (FIG. 2, 410) operative of the mobile-communication device, Applicants' specification, page 27, lines 19-21; means for forwarding the graphics device commands (e.g., FIG. 2, 210; FIG. 4, 410; FIG. 11, 1112) to the print service (FIG. 3,

700), wherein the print service (FIG. 3, 700) renders the graphics device commands in accordance with the printer (FIG. 1, 116), Applicants' specification, page 24, lines 21-26 and page 27, lines 20-24; and means for restoring (e.g., FIG. 2, 210; FIG. 4, 410; FIG. 12, 1204) a default-printing device resource pool as the list of printing devices that are available to be selected upon termination of the network connection at the remote location. Applicants' specification, page 7, lines 8-12 and page 22, lines 1-4.

Embodiments according to independent claim 21 describe a mobile-computing apparatus comprising a processor (FIG. 2, 210) and a memory (FIG. 2, 220) coupled to the processor (FIG. 2, 210) having stored therein a driver (FIG. 10, 764). The driver (FIG. 3, 764) comprises a communication interface (FIG. 10, 1000) including an application interface (FIG. 10, 1010) for communicatively coupling the driver (FIG. 10, 764) to an application (FIG. 2, 410) executing within the processor (FIG. 2, 210) and a print service interface (FIG. 10, 1020) for communicatively coupling the driver (FIG. 10, 764) to a print service (FIG. 3, 700) wirelessly coupled to the mobile-computing apparatus, wherein the mobile-computing apparatus receives the driver (FIG. 10, 764) from the print service (FIG. 3, 700). Applicants' specification, page 26, lines 23-27. The driver (FIG. 10, 764) further comprises an interceptor (FIG. 10, 1040) coupled to the communication interface (FIG. 10, 1000), where the interceptor (FIG. 10, 1040) is configured to identify and forward graphics device commands issued by the application (FIG. 2, 410), Applicants' specification, page 27, lines 20-21, and a formatter (FIG. 10, 1050) coupled to the interceptor (FIG. 10, 1040), wherein when the formatter (FIG. 10, 1050) is enabled, the formatter (FIG. 10, 1050) renders information desired to be printed from the mobile-communication device to an intermediate format communicated to the

print service (FIG. 3, 700), wherein the application interface (FIG. 10, 1010) is enabled to restore a default-printing device resource pool as a list of printing devices that are available to be selected upon termination of a network connection with the print service (FIG. 3, 700). Applicants' specification, page 7, lines 8-12; page 22, lines 1-4; and page 27, lines 21-24.

VI. Grounds of Rejection to be Reviewed on Appeal

The following grounds of rejections are to be reviewed on appeal:

Claims 6-7 and 9-14 have been rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter; and

Claims 1-2, 4-7, 9-17, and 19-24 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Lamming* (U.S. Patent No. 6,922,725) in further view of *Lin* (U.S. Patent No. 6,757,070) in further view of *Abe* (U.S. Patent No. 6,892,299) in further view of *Vidyanand* (U.S. Patent No. 6,967,728) in further view of *Kiraly* (U.S. Patent Publication No. 2004/0184070 A1).

VII. Arguments

The Appellants respectfully submit that Applicants' claims 1-2, 4-7, 9-17, and 19-24 are patentable over the cited art. The Appellants respectfully request that the Board of Patent Appeals overturn the rejection of those claims at least for the reasons discussed below.

A. Response to Rejection of Claims under 35 U.S.C. § 101

Claims 6-7 and 9-14 have been rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter.

Independent claim 6 recites “sensing by the processor a change of connection status between a mobile-computing device and a wireless access device coupled to a local area network; establishing by the processor a communication session with a print service accessible via the local area network when the change of connection status indicates that the mobile-computing device has established a communication session with the wireless access device, wherein during the communication session the mobile-computing device uses a printer driver configured to generate a generic device context responsive to a designated printer coupled to the print service; using the printer driver to intercept graphics device commands generated by an application operative on the mobile-computing device; -forwarding the graphics device commands by the processor to the print service, wherein the print service renders the graphics device commands against the designated printer, wherein during the communication session, the mobile-computing device receives a common driver from the print service; and upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected.”

In view of the above, Appellants note that the Federal Circuit in *Bilski* states that “The question before us then is whether Applicants’ claim recites a fundamental principle and, if so, whether it would pre-empt substantially all uses of that fundamental principle if allowed.” See *id.* at p. 10. Appellants respectfully submit that the language of claim 6 is not a recitation of a fundamental principle. More aptly, the claim is an

application of a defined process. For example, Applicants' claim does not pre-empt substantially all uses of the underlying process.

Accordingly, the Supreme Court has previously pointed out that while a claim drawn to a fundamental principle is unpatentable, "an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection." *Diamond v. Diehr*, 450 U.S. 175, 185 (1981). For at least these reasons, Appellants respectfully submit that the rejection should be overturned.

Further, claim 6 is directed to sensing by a processor a change of connection status between a mobile-computing device and a wireless access device coupled to a local area network; establishing by the processor a communication session with a print service accessible via the local area network when the change of connection status indicates that the mobile-computing device has established a communication session with the wireless access device, forwarding the graphics device commands by the processor to the print service, *etc.* Accordingly, the subject matter of the claim is tied to a particular machine. Therefore, the claimed process is surely patent-eligible under § 101, since the claimed process is tied to a particular machine or apparatus.

Accordingly, Applicants respectfully submit that the rejection should be overturned and that the pending claims 6-7 and 9-14 are in condition for allowance.

B. Response to Rejection of Claims under 35 U.S.C. § 103

i. Applicants' Claims 1-2 and 4-5

As provided in independent claim 1, Applicants claim:

A method for printing information at a remote location, comprising:
establishing a network connection at a remote location;
receiving a list of printing devices communicatively coupled to a print service available to a mobile-computing device;
accepting and installing at the mobile-computing device a latest version of a common print driver from the print service;
requesting a print device context responsive to a printer selected from the list of printing devices;
using an application resident on the mobile-computing device to render information to the print device context, wherein the application generates a plurality of device commands responsive to the information to be printed;
forwarding the device commands to the print service, wherein the print service renders the device commands against the printer; and
upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected.

(Emphasis added).

Appellants respectfully submit that independent claim 1 is allowable for at least the reason that *Lamming* in view of *Lin* in further view of *Abe* in further view of *Vidyanand* in further view of *Kiraly* does not disclose, teach, or suggest at least “accepting and installing at the mobile-computing device a latest version of a common print driver from the print service” and “upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected,” as emphasized above.

For example, *Lamming* describes processing a document service request from a mobile computing device. In *Lamming*, the mobile computing device 212 communicates

with a document server 108 and identifies a document to be printer. The “document server 108 locates the document identified by the document reference specified as a parameter in the document service request. . . . [A]fter retrieving the document identified by the document reference, a driver is loaded if necessary (i.e., not already loaded) for the specified output device that is adapted to process the format in which the retrieved document exists.” See col. 10, lines 46-60. As such, *Lamming* discloses a document server (as opposed to a mobile-computing device) utilizing a driver. As such, *Lamming* fails to teach or suggest at least “accepting and installing at the mobile-computing device a latest version of a common print driver from the print service” or “upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected,” as recited in claim 1.

Further, *Lin* describes a print driver being pre-installed in a client computer and does not disclose a driver being accepted and installed from a print service by a mobile-computing device. See col. 4, lines 60-66. As such, *Lin* individually or in combination with *Lamming* fails to teach or suggest “accepting and installing at the mobile-computing device a latest version of a common print driver from the print service” or “upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected,” as recited in claim 1.

Abe describes a printer driver specific to a printer being downloaded to a portable terminal. As such, *Abe* individually or in combination with *Lamming* and *Lin* fails to teach or suggest “accepting and installing at the mobile-computing device a latest

version of a common print driver from the print service” or “upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected,” as recited in claim 1.

In addition, *Vidyanand* describes print preferences (e.g., a preference for a certain page size) being transferred and does not disclose that a driver is transferred or received from a print service in the manner claimed. See, e.g., col. 5, lines 36-64. As such, *Vidyanand* individually or in combination with *Lamming*, *Lin*, and *Abe* fails to teach or suggest “accepting and installing at the mobile-computing device a latest version of a common print driver from the print service” or “upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected,” as recited in claim 1.

Moreover, *Kiraly* describes propagating changes made to printer connections to client machines. Therefore, when a new change is made to a printer connection, the new change is propagated to applicable client machines. See para. 0027. *Kiraly* fails to disclose that a prior setting or default listing is restored. Accordingly, the Final Office Action is incorrect in stating that “*Kiraly* teaches that upon termination of the network connection at the remote location (see *Kiraly*, para. [0058], a previously stored printer connection is removed), restoring a default-printing device resource pool as the list of printing devices that are available to be selected (see *Kiraly*, para. [0058], update the old set of printer connections maintained; para. [0050], storing printer connections available to be selected, fig. 7).” Pages 6-7. For example, paragraph 0058 of *Kiraly* discloses deleting an old printer connection that has been updated with a new printer

connection, which thereby prohibits the old printer connection from ever being restored. Likewise, *Kiraly* does not disclose maintaining a default-printing device resource pool.

As such, *Kiraly* individually or in combination with *Lamming*, *Lin*, *Abe*, and *Vidyanand* fails to teach or suggest “accepting and installing at the mobile-computing device a latest version of a common print driver from the print service” or “upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected,” as recited in claim 1.

As a result, claim 1 is patentable over the cited art, and the rejection should be overturned. Since claims 2 and 4-5 depend from claim 1 and recite additional features, claims 2 and 4-5 are allowable as a matter of law over the cited art of record.

ii. Applicants’ Claims 6-7 and 9-14

As provided in independent claim 6, Applicants claim:

A computer-readable storage medium having stored thereon an executable instruction set, the instruction set, when executed by a processor, directs the processor to perform a method comprising:

sensing by the processor a change of connection status between a mobile-computing device and a wireless access device coupled to a local area network;

establishing by the processor a communication session with a print service accessible via the local area network when the change of connection status indicates that the mobile-computing device has established a communication session with the wireless access device, wherein during the communication session the mobile-computing device uses a printer driver configured to generate a generic device context responsive to a designated printer coupled to the print service;

using the printer driver to intercept graphics device commands generated by an application operative on the mobile-computing device;

forwarding the graphics device commands by the processor to the print service, wherein the print service renders the graphics device commands against the designated printer, wherein during the

communication session, the mobile-computing device receives a common driver from the print service; and upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected.

(Emphasis added).

Appellants respectfully submit that independent claim 6 is allowable for at least the reason that *Lamming* in view of *Lin* in further view of *Abe* in further view of *Vidyanand* in further view of *Kiraly* does not disclose, teach, or suggest at least “forwarding the graphics device commands by the processor to the print service, wherein the print service renders the graphics device commands against the designated printer, wherein during the communication session, the mobile-computing device receives a common driver from the print service; and upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected,” as emphasized above.

For example, *Lamming* describes processing a document service request from a mobile computing device. In *Lamming*, the mobile computing device 212 communicates with a document server 108 and identifies a document to be printer. The “document server 108 locates the document identified by the document reference specified as a parameter in the document service request. . . . [A]fter retrieving the document identified by the document reference, a driver is loaded if necessary (i.e., not already loaded) for the specified output device that is adapted to process the format in which the retrieved document exists.” See col. 10, lines 46-60. As such, *Lamming* fails to teach or suggest “forwarding the graphics device commands by the processor to the print service, wherein the print service renders the graphics device commands against the

designated printer, wherein during the communication session, the mobile-computing device receives a common driver from the print service; and upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected,” as recited in claim 6.

Further, *Lin* describes a print driver being pre-installed in a client computer and does not disclose a driver being accepted and installed from a print service by a mobile-computing device. See col. 4, lines 60-66. As such, *Lin* individually or in combination with *Lamming* fails to teach or suggest “forwarding the graphics device commands by the processor to the print service, wherein the print service renders the graphics device commands against the designated printer, wherein during the communication session, the mobile-computing device receives a common driver from the print service; and upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected,” as recited in claim 6.

Abe describes a printer driver specific to a printer being downloaded to a portable terminal. As such, *Abe* individually or in combination with *Lamming* and *Lin* fails to teach or suggest “forwarding the graphics device commands by the processor to the print service, wherein the print service renders the graphics device commands against the designated printer, wherein during the communication session, the mobile-computing device receives a common driver from the print service; and upon termination of the network connection at the remote location, restoring a default-printing

device resource pool as the list of printing devices that are available to be selected,” as recited in claim 6.

In addition, *Vidyanand* describes print preferences (e.g., a preference for a certain page size) being transferred and does not disclose that a driver is transferred or received from a print service in the manner claimed. See, e.g., col. 5, lines 36-64. As such, *Vidyanand* individually or in combination with *Lamming*, *Lin*, and *Abe* fails to teach or suggest “forwarding the graphics device commands by the processor to the print service, wherein the print service renders the graphics device commands against the designated printer, wherein during the communication session, the mobile-computing device receives a common driver from the print service; and upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected,” as recited in claim 6,” as recited in claim 6.

Moreover, *Kiraly* describes propagating changes made to printer connections to client machines. Therefore, when a new change is made to a printer connection, the new change is propagated to applicable client machines. See para. 0027. *Kiraly* fails to disclose that a prior setting or default listing is restored. Accordingly, the Final Office Action is incorrect in stating that “*Kiraly* teaches that upon termination of the network connection at the remote location (see *Kiraly*, para. [0058], a previously stored printer connection is removed), restoring a default-printing device resource pool as the list of printing devices that are available to be selected (see *Kiraly*, para. [0058], update the old set of printer connections maintained; para. [0050], storing printer connections available to be selected, fig. 7).” Pages 6-7. For example, paragraph 0058 of *Kiraly*

discloses deleting an old printer connection that has been updated with a new printer connection, which thereby prohibits the old printer connection from ever being restored. Likewise, *Kiraly* does not disclose maintaining a default-printing device resource pool.

As such, *Kiraly* individually or in combination with *Lamming*, *Lin*, *Abe*, and *Vidyanand* fails to teach or suggest “forwarding the graphics device commands by the processor to the print service, wherein the print service renders the graphics device commands against the designated printer, wherein during the communication session, the mobile-computing device receives a common driver from the print service; and upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected,” as recited in claim 6.

As a result, claim 6 is patentable over the cited art, and the rejection should be overturned. Since claims 7 and 9-14 depend from claim 6 and recite additional features, claims 7 and 9-14 are allowable as a matter of law over the cited art of record.

iii. Applicants’ Claims 15-17 and 19-20

As provided in independent claim 15, Applicants claim:

A mobile-computing device, comprising:

means for responding to a change of connection status between a mobile-computing device and a wireless access device communicatively coupled to a print service;

means for establishing a communication session with the print service when the change of connection status indicates that the mobile-computing device has established a connection with the wireless access device, wherein during the communication session the mobile-computing device uses a printer driver configured to generate a generic device context responsive to a printer coupled to the print service and wherein the means for establishing a

communication session further comprises means for receiving a common driver;

means for intercepting graphics device commands generated by an application operative of the mobile-communication device;

means for forwarding the graphics device commands to the print service, wherein the print service renders the graphics device commands in accordance with the printer; and

means for restoring a default-printing device resource pool as the list of printing devices that are available to be selected upon termination of the network connection at the remote location.

(Emphasis added).

Appellants respectfully submit that independent claim 15 is allowable for at least the reason that *Lamming* in view of *Lin* in further view of *Abe* in further view of *Vidyanand* in further view of *Kiraly* does not disclose, teach, or suggest at least “means for establishing a communication session with the print service when the change of connection status indicates that the mobile-computing device has established a connection with the wireless access device, wherein during the communication session the mobile-computing device uses a printer driver configured to generate a generic device context responsive to a printer coupled to the print service and wherein the means for establishing a communication session further comprises means for receiving a common driver from the print service” and “means for restoring a default-printing device resource pool as the list of printing devices that are available to be selected upon termination of the network connection at the remote location,” as emphasized above.

For example, *Lamming* describes processing a document service request from a mobile computing device. In *Lamming*, the mobile computing device 212 communicates with a document server 108 and identifies a document to be printer. The “document server 108 locates the document identified by the document reference specified as a parameter in the document service request. . . . [A]fter retrieving the document

identified by the document reference, a driver is loaded if necessary (i.e., not already loaded) for the specified output device that is adapted to process the format in which the retrieved document exists.” See col. 10, lines 46-60. As such, *Lamming* fails to teach or suggest “means for establishing a communication session with the print service when the change of connection status indicates that the mobile-computing device has established a connection with the wireless access device, wherein during the communication session the mobile-computing device uses a printer driver configured to generate a generic device context responsive to a printer coupled to the print service and wherein the means for establishing a communication session further comprises means for receiving a common driver from the print service and “means for restoring a default-printing device resource pool as the list of printing devices that are available to be selected upon termination of the network connection at the remote location,” as recited in claim 15.

Further, *Lin* describes a print driver being pre-installed in a client computer and does not disclose a driver being accepted and installed from a print service by a mobile-computing device. See col. 4, lines 60-66. As such, *Lin* individually or in combination with *Lamming* fails to teach or suggest “means for establishing a communication session with the print service when the change of connection status indicates that the mobile-computing device has established a connection with the wireless access device, wherein during the communication session the mobile-computing device uses a printer driver configured to generate a generic device context responsive to a printer coupled to the print service and wherein the means for establishing a communication session further comprises means for receiving a common driver from the print service and

“means for restoring a default-printing device resource pool as the list of printing devices that are available to be selected upon termination of the network connection at the remote location,” as recited in claim 15.

Abe describes a printer driver specific to a printer being downloaded to a portable terminal. As such, *Abe* individually or in combination with *Lamming* and *Lin* fails to teach or suggest “means for establishing a communication session with the print service when the change of connection status indicates that the mobile-computing device has established a connection with the wireless access device, wherein during the communication session the mobile-computing device uses a printer driver configured to generate a generic device context responsive to a printer coupled to the print service and wherein the means for establishing a communication session further comprises means for receiving a common driver from the print service and “means for restoring a default-printing device resource pool as the list of printing devices that are available to be selected upon termination of the network connection at the remote location,” as recited in claim 15.

In addition, *Vidyanand* describes print preferences (*e.g.*, a preference for a certain page size) being transferred and does not disclose that a driver is transferred or received from a print service in the manner claimed. See, *e.g.*, col. 5, lines 36-64. As such, *Vidyanand* individually or in combination with *Lamming*, *Lin*, and *Abe* fails to teach or suggest “means for establishing a communication session with the print service when the change of connection status indicates that the mobile-computing device has established a connection with the wireless access device, wherein during the communication session the mobile-computing device uses a printer driver configured to

generate a generic device context responsive to a printer coupled to the print service and wherein the means for establishing a communication session further comprises means for receiving a common driver from the print service and “means for restoring a default-printing device resource pool as the list of printing devices that are available to be selected upon termination of the network connection at the remote location,” as recited in claim 15.

Moreover, *Kiraly* describes propagating changes made to printer connections to client machines. Therefore, when a new change is made to a printer connection, the new change is propagated to applicable client machines. See para. 0027. *Kiraly* fails to disclose that a prior setting or default listing is restored. Accordingly, the Final Office Action is incorrect in stating that “*Kiraly* teaches that upon termination of the network connection at the remote location (see *Kiraly*, para. [0058], a previously stored printer connection is removed), restoring a default-printing device resource pool as the list of printing devices that are available to be selected (see *Kiraly*, para. [0058], update the old set of printer connections maintained; para. [0050], storing printer connections available to be selected, fig. 7).” Pages 6-7. For example, paragraph 0058 of *Kiraly* discloses deleting an old printer connection that has been updated with a new printer connection, which thereby prohibits the old printer connection from ever being restored. Likewise, *Kiraly* does not disclose maintaining a default-printing device resource pool.

As such, *Kiraly* individually or in combination with *Lamming*, *Lin*, *Abe*, and *Vidyanand* fails to teach or suggest “means for establishing a communication session with the print service when the change of connection status indicates that the mobile-computing device has established a connection with the wireless access device,

wherein during the communication session the mobile-computing device uses a printer driver configured to generate a generic device context responsive to a printer coupled to the print service and wherein the means for establishing a communication session further comprises means for receiving a common driver from the print service and “means for restoring a default-printing device resource pool as the list of printing devices that are available to be selected upon termination of the network connection at the remote location,” as recited in claim 15.

As a result, claim 15 is patentable over the cited art, and the rejection should be overturned. Since claims 16-17 and 19-20 depend from claim 15 and recite additional features, claims 16-17 and 19-20 are allowable as a matter of law over the cited art of record.

iv. Applicants’ Claims 21-24

As provided in independent claim 21, Applicants claim:

A mobile-computing apparatus, comprising:
a processor;
a memory coupled to the processor having stored therein a driver comprising:
a communication interface including:
an application interface for communicatively coupling the driver to an application executing within the processor; and
a print service interface for communicatively coupling the driver to a print service wirelessly coupled to the mobile-computing apparatus, wherein the mobile-computing apparatus receives the driver from the print service;
an interceptor coupled to the communication interface, the interceptor configured to identify and forward graphics device commands issued by the application; and
a formatter coupled to the interceptor, wherein when the formatter is enabled, the formatter renders information desired to be printed from the mobile-communication device to an intermediate format communicated to the print service, **wherein the application interface is**

enabled to restore a default-printing device resource pool as a list of printing devices that are available to be selected upon termination of a network connection with the print service.

(Emphasis added).

Appellants respectfully submit that independent claim 21 is allowable for at least the reason that *Lamming* in view of *Lin* in further view of *Abe* in further view of *Vidyanand* in further view of *Kiraly* does not disclose, teach, or suggest at least “a print service interface for communicatively coupling the driver to a print service wirelessly coupled to the mobile-computing apparatus, wherein the mobile-computing apparatus receives the driver from the print service” and “wherein the application interface is enabled to restore a default-printing device resource pool as a list of printing devices that are available to be selected upon termination of a network connection with the print service,” as emphasized above.

For example, *Lamming* describes processing a document service request from a mobile computing device. In *Lamming*, the mobile computing device 212 communicates with a document server 108 and identifies a document to be printer. The “document server 108 locates the document identified by the document reference specified as a parameter in the document service request. . . . [A]fter retrieving the document identified by the document reference, a driver is loaded if necessary (i.e., not already loaded) for the specified output device that is adapted to process the format in which the retrieved document exists.” See col. 10, lines 46-60. As such, *Lamming* fails to teach or suggest at least “an interceptor coupled to the communication interface, the interceptor configured to identify and forward graphics device commands issued by the application; and a formatter coupled to the interceptor, wherein when the formatter is

enabled, the formatter renders information desired to be printed from the mobile-communication device to an intermediate format communicated to the print service” and “wherein the application interface is enabled to restore a default-printing device resource pool as a list of printing devices that are available to be selected upon termination of a network connection with the print service,” as recited in claim 21.

Further, *Lin* describes a print driver being pre-installed in a client computer and does not disclose a driver being accepted and installed from a print service by a mobile-computing device. See col. 4, lines 60-66. As such, *Lin* individually or in combination with *Lamming* fails to teach or suggest at least “an interceptor coupled to the communication interface, the interceptor configured to identify and forward graphics device commands issued by the application; and a formatter coupled to the interceptor, wherein when the formatter is enabled, the formatter renders information desired to be printed from the mobile-communication device to an intermediate format communicated to the print service” and “wherein the application interface is enabled to restore a default-printing device resource pool as a list of printing devices that are available to be selected upon termination of a network connection with the print service,” as recited in claim 21.

Abe describes a printer driver specific to a printer being downloaded to a portable terminal. As such, *Abe* individually or in combination with *Lamming* and *Lin* fails to teach or suggest “an interceptor coupled to the communication interface, the interceptor configured to identify and forward graphics device commands issued by the application; and a formatter coupled to the interceptor, wherein when the formatter is enabled, the formatter renders information desired to be printed from the mobile-communication

device to an intermediate format communicated to the print service” and “wherein the application interface is enabled to restore a default-printing device resource pool as a list of printing devices that are available to be selected upon termination of a network connection with the print service,” as recited in claim 21.

In addition, *Vidyanand* describes print preferences (e.g., a preference for a certain page size) being transferred and does not disclose that a driver is transferred or received from a print service in the manner claimed. See, e.g., col. 5, lines 36-64. As such, *Vidyanand* individually or in combination with *Lamming*, *Lin*, and *Abe* fails to teach or suggest “an interceptor coupled to the communication interface, the interceptor configured to identify and forward graphics device commands issued by the application; and a formatter coupled to the interceptor, wherein when the formatter is enabled, the formatter renders information desired to be printed from the mobile-communication device to an intermediate format communicated to the print service” and “wherein the application interface is enabled to restore a default-printing device resource pool as a list of printing devices that are available to be selected upon termination of a network connection with the print service,” as recited in claim 21.

Moreover, *Kiraly* describes propagating changes made to printer connections to client machines. Therefore, when a new change is made to a printer connection, the new change is propagated to applicable client machines. See para. 0027. *Kiraly* fails to disclose that a prior setting or default listing is restored. Accordingly, the Final Office Action is incorrect in stating that “*Kiraly* teaches that upon termination of the network connection at the remote location (see *Kiraly*, para. [0058], a previously stored printer connection is removed), restoring a default-printing device resource pool as the list of

printing devices that are available to be selected (see *Kiraly*, para. [0058], update the old set of printer connections maintained; para. [0050], storing printer connections available to be selected, fig. 7).” Pages 6-7. For example, paragraph 0058 of *Kiraly* discloses deleting an old printer connection that has been updated with a new printer connection, which thereby prohibits the old printer connection from ever being restored. Likewise, *Kiraly* does not disclose maintaining a default-printing device resource pool.

As such, *Kiraly* individually or in combination with *Lamming*, *Lin*, *Abe*, and *Vidyanand* fails to teach or suggest “an interceptor coupled to the communication interface, the interceptor configured to identify and forward graphics device commands issued by the application; and a formatter coupled to the interceptor, wherein when the formatter is enabled, the formatter renders information desired to be printed from the mobile-communication device to an intermediate format communicated to the print service” and “wherein the application interface is enabled to restore a default-printing device resource pool as a list of printing devices that are available to be selected upon termination of a network connection with the print service,” as recited in claim 21.

As a result, claim 21 is patentable over the cited art, and the rejection should be withdrawn. Since claims 22-24 depend from claim 21 and recite additional features, claims 22-24 are allowable as a matter of law over the cited art of record.

III. Conclusion

In summary, it is Appellants' position that Applicants' claims are patentable over the applied cited art references and that the rejection of these claims should be overturned. Appellants therefore respectfully request that the Board of Appeals overturn the Examiner's rejection and allow Applicants' pending claims.

Respectfully submitted,

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Claims Appendix under 37 C.F.R. § 41.37(c)(1)(viii)

The following are the claims that are involved in this Appeal.

1. A method for printing information at a remote location, comprising:
establishing a network connection at a remote location;
receiving a list of printing devices communicatively coupled to a print service available to a mobile-computing device;
accepting and installing at the mobile-computing device a latest version of a common print driver from the print service;
requesting a print device context responsive to a printer selected from the list of printing devices;
using an application resident on the mobile-computing device to render information to the print device context, wherein the application generates a plurality of device commands responsive to the information to be printed;
forwarding the device commands to the print service, wherein the print service renders the device commands against the printer; and
upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected.

2. The method of claim 1, further comprising:
intercepting the device commands;
generating an intermediate format; and
rendering the intermediate format before the step of forwarding.
3. Canceled
4. The method of claim 1, further comprising:
receiving a printer status from the print service.
5. The method of claim 4, further comprising:
forwarding the printer status to the application.

6. A computer-readable storage medium having stored thereon an executable instruction set, the instruction set, when executed by a processor, directs the processor to perform a method comprising:

sensing by the processor a change of connection status between a mobile-computing device and a wireless access device coupled to a local area network;

establishing by the processor a communication session with a print service accessible via the local area network when the change of connection status indicates that the mobile-computing device has established a communication session with the wireless access device, wherein during the communication session the mobile-computing device uses a printer driver configured to generate a generic device context responsive to a designated printer coupled to the print service;

using the printer driver to intercept graphics device commands generated by an application operative on the mobile-computing device;

forwarding the graphics device commands by the processor to the print service, wherein the print service renders the graphics device commands against the designated printer, wherein during the communication session, the mobile-computing device receives a common driver from the print service; and

upon termination of the network connection at the remote location, restoring a default-printing device resource pool as the list of printing devices that are available to be selected.

7. The computer-readable storage medium of claim 6, wherein using the printer driver comprises generating an intermediate format and rendering the intermediate format before forwarding the graphics device commands.

8. Canceled

9 The computer-readable storage medium of claim 6, further comprising:
receiving a printer status from the print service.

10. The computer-readable storage of claim 6, further comprising:
forwarding the printer status to the application.

11. The computer-readable storage medium of claim 6, further comprising:
displaying information indicative of a printing device available to the mobile-computing device.

12. The computer-readable storage of claim 6, further comprising:
reporting information indicative of the condition of pending print tasks.

13. The computer-readable storage of claim 6, further comprising:
identifying a default device for print requests originating within the mobile-computing device.

14. The computer-readable storage of claim 6, further comprising:

reconfiguring the mobile-computing device in accordance with indicia of the default device when the change of connection status indicates that the communication session with the wireless access device has terminated.

15. A mobile-computing device, comprising:

means for responding to a change of connection status between a mobile-computing device and a wireless access device communicatively coupled to a print service;

means for establishing a communication session with the print service when the change of connection status indicates that the mobile-computing device has established a connection with the wireless access device, wherein during the communication session the mobile-computing device uses a printer driver configured to generate a generic device context responsive to a printer coupled to the print service and wherein the means for establishing a communication session further comprises means for receiving a common driver;

means for intercepting graphics device commands generated by an application operative of the mobile-communication device;

means for forwarding the graphics device commands to the print service, wherein the print service renders the graphics device commands in accordance with the printer; and

means for restoring a default-printing device resource pool as the list of printing devices that are available to be selected upon termination of the network connection at the remote location.

16. The mobile-computing device of claim 15, wherein the means for establishing a communication session with the print service comprises an application program.

17. The mobile-computing device of claim 15, wherein the means for intercepting graphics device commands comprises a printer driver.

18. Canceled

19. The mobile-computing device of claim 15, further comprising:
print task initialization means for receiving a user-selected input indicative of content desired to be printed by the printing device.

20. The mobile-computing device of claim 19, further comprising:
monitoring means for observing the condition of pending print tasks.

21. A mobile-computing apparatus, comprising:

- a processor;
- a memory coupled to the processor having stored therein a driver comprising:
 - a communication interface including:
 - an application interface for communicatively coupling the driver to an application executing within the processor; and
 - a print service interface for communicatively coupling the driver to a print service wirelessly coupled to the mobile-computing apparatus, wherein the mobile-computing apparatus receives the driver from the print service;
 - an interceptor coupled to the communication interface, the interceptor configured to identify and forward graphics device commands issued by the application; and
 - a formatter coupled to the interceptor, wherein when the formatter is enabled, the formatter renders information desired to be printed from the mobile-communication device to an intermediate format communicated to the print service, wherein the application interface is enabled to restore a default-printing device resource pool as a list of printing devices that are available to be selected upon termination of a network connection with the print service.

22. The apparatus of claim 21, wherein when the formatter is disabled, the interceptor forwards the graphics device commands to the print service for rendering via a printer driver compatible with a select printer coupled to the print service.

23. The apparatus of claim 21, further comprising:

a message handler configured to receive indicia of a printer status.

24. The apparatus of claim 23, wherein the message handler is configured to forward the printer status via the application interface to the application.

Evidence Appendix under 37 C.F.R. § 41.37(c)(1)(ix)

There is no extrinsic evidence to be considered in this Appeal. Therefore, no evidence is presented in this Appendix.

Related Proceedings Appendix under 37 C.F.R. § 41.37(c)(1)(x)

There are no related proceedings to be considered in this Appeal. Therefore, no such proceedings are identified in this Appendix.